Scales and Methods of Engagement

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http://www.cs.ubc.ca/~tmm/talks.html#canvas14
Mentoring individuals

• grad students and postdocs in my group
  – prepare HQP for professor, high-level industry/lab jobs
  – produce research papers
    • techniques, systems
      – dimensionality reduction
    – graph drawing
    – focus+context
  • evaluation
  • models/taxonomies
Researcher guidance: “meta” / how to papers

- papers process and pitfalls
- nested model for vis design and validation
  - revisited: blocks and guidelines
- design study methodology
Design study methodology

- lessons learned from 21 total (12 here), across many domains
- problem-driven work: what to do, what to avoid

Cerebral genomics  MizBee genomics  Pathline genomics  MulteeSum genomics  Vismon fisheries management  QuestVis sustainability  WiKeVis in-car networks

MostVis in-car networks  Car-X-Ray in-car networks  ProgSpy2010 in-car networks  RelEx in-car networks  Cardiogram in-car networks  AutobahnVis in-car networks  VisTral in-car networks

Constellation linguistics  LibVis cultural heritage  Caidants multicast  SessionViewer web log analysis  LiveRAC server hosting  PowerSetViewer data mining  LastHistory music listening

Tamara Munzner, UBC CS, http://www.cs.ubc.ca/group/infovis
Practitioner guidance: “stop it” / how not to to papers

• guidance on scatterplot, dimensionality reduction choices
  – avoid 3D scatterplots for DR data

• 2D points vs 3D landscapes
  – avoid 3D landscapes

• empirical studies
Growing the field: synthesis textbook

- analysis and design framework
  - teaching my own grad class
  - resource for others
    - support teaching by wider set
  - accelerate growth of field
    - 1998: very few courses
    - 2002: several
    - 2014: dozens
    - 2020: hundreds? thousands?...

Visualization Analysis and Design.

Past and Future

• scales of engagement
  – individuals
  – students in my course
  – research community
  – practitioner community
  – students worldwide

• methods of engagement with industry
  – direct collaboration with individuals at companies
    • Agilent, AT&T, Google, small startups

• my past: very research/academic centric

• my future: other/broader channels?...
More Information

• these slides
  http://www.cs.ubc.ca/~tmm/talks.html#canvas14

• papers, videos, software, talks, courses, mini-courses
  http://www.cs.ubc.ca/group/infovis
  http://www.cs.ubc.ca/~tmm

• book (to appear Oct 2014)
  http://www.cs.ubc.ca/~tmm/vadbook

Visualization Analysis and Design.